

Project Code and Title

B.02.02.01.02 Vehicle Crash Test, Biomechanics, and Component Test Database Design, Maintenance, and Improvement

Project Objective

To develop enhancements to and continue the ongoing maintenance of the Vehicle Crash Test, Biomechanics, and Component databases and provide the computational tools necessary to conduct crash, sled, and component test data analyses.

Background

The Vehicle, Biomechanics, and Components databases form the engineering basis for directing NHTSA Crashworthiness research efforts and for support of Agency rulemaking. The data stored in these three NHTSA Databases constitute the most comprehensive public compilation of such data in existence, and are internationally recognized by the automotive safety research community to be a unique research resource.

Problem Definition

Because the accuracy of NHTSA Crashworthiness analyses depend on the validity and availability of crash test data, crash test data integrity and ease of access is essential to meeting the OCR research mission.

Research Approach

The proposed tasks will develop enhancements to the databases which will improve crash test validity, usability, and availability. The program will:

- (1) develop "user friendly" crash test data diskette generation system for installation at contractor test sites,
- (2) develop an automated data verification system for installation at the test sites,
- (3) develop an automated data tape validation system, and
- (4) continue the maintenance and analysis of the information contained in all the major OCR databases.

Potential Impact/Application

The NHTSA magnetic data format has been adopted as the SAE industry standard for transmission of crash test data. Eventually, the NHTSA vehicle crash test database will be made accessible through the Internet.

Key Milestones

- ▶ NHTSA data format adopted under SAE J211, March 95
- ▶ ENTREE PC data entry program, released May 1995
- ▶ NHTSA database migration to ORACLE, June 1996

RESOURCE REQUIREMENTS	FY 96	FY 97	FY 98	FY	FY
Contract Money (\$K)	75	120	120		

Project Manager(s)

Randa Radwan Samaha, (202)366-4707, Randa.Samaha@nhtsa.dot.gov
Barbara Hennessey, (202)366-4714, Barbara.Hennessey@nhtsa.dot.gov

Completion Date

ENTREE PC for Windows, October 1996.
Data Reference Guides, Version 4, on-line November 1996

Publications

1. NHTSA Vehicle Data Reference Guide, Version 3, January 1994.
2. NHTSA Biomechanics Data Reference Guide, Version 3, September 1994.

Keywords: Data, Database, Crash, Vehicle, Biomechanics, Component

Project Tasks**Task Title and Description**

Task 1	Develop Automated test tap/diskette Generation Software System (ENTREE)
Task 2	Enhance ENTREE to Input Biomechanics and Signal Waveform Generator Information
Task 3	Incorporate Data Checks into ENTREE
Task 4	Develop Automated Specification Validation Software System
Task 5	Convert Databases to Metric Units
Task 6	Enhance ENTREE to Validate Measurement Data
Task 7	Update Data Tape Reference Guides

Task	Start Date	Projected Completion Date	Status/Responsibility
1	09/91	09/92	Complete
2	09/92	12/92	Complete
3	06/92	-----	Ongoing
4	06/92	-----	Ongoing
5	-----	08/92	Complete*
6	-----	-----	Planned
7	08/92	-----	Ongoing